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Titolo	Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications : Volume 1. Microbial Diversity in Normal & Extreme Environments / / edited by Tulasi Satyanarayana, Bhavdish Narain Johri, Subrata Kumar Das
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Nota di contenuto	Part 1. General Aspects -- Chapter 1. Emerging Concepts in Bacterial Taxonomy -- Chapter 2. Bioinformatics Tools for Microbial Diversity Analysis -- Chapter 3. Application of Genomics to Understand the Pathogenic Microbial Diversity -- Chapter 4. Fungal Diversity: Global Perspective and Ecosystem Dynamics -- Part 2. Microbes in normal and extreme environments -- Chapter 5. Marine Microbial Diversity for sustainable development -- Chapter 6. Diversity of Microbes in Hot Springs and their Sustainable Use -- Chapter 7. Thermophilic Fungal Diversity in Sustainable Development -- Chapter 8. Deep Biosphere: Microbiome of the Deep Terrestrial Subsurface -- Chapter 9. Marine Fungal Diversity: Present status and Future Perspectives -- Chapter 10. Diversity of Iron and Sulphur Oxidisers in Sulphide Mine Leachates -- Chapter 11. Distribution and bio-prospecting potential of

actinobacteria from Indian Mangrove Ecosystems -- Chapter 12. Gut Microbiomes and its Impact on Human Health -- Chapter 13. Importance of Cyanobacterial Taxonomy in Biotechnological Applications -- Chapter 14. Microbial Treatment of Waste by Culture Dependent and Independent Approaches: Opportunities and Challenges -- Chapter 15. Diversity of Polysaccharides in Cyanobacteria -- Chapter 16. Halocin Diversity among Halophilic Archaea and their Applications -- Chapter 17. Microbial Diversity and Dynamics in Hydrocarbon Resource Environments -- Chapter 18. Mining Human Microbiome for therapeutics -- Chapter 19. Microbiome: A Source of Novel Bioactive Compounds and Antimicrobial Peptides. .

Sommario/riassunto

This book discusses microbial diversity in various habitats and environments, its role in ecosystem maintenance, and its potential applications (e.g. biofertilizers, biocatalysts, antibiotics, other bioactive compounds, exopolysaccharides etc.). The respective chapters, all contributed by renowned experts, offer cutting-edge information in the fields of microbial ecology and biogeography. The book explains the reasons behind the occurrence of various biogeographies and highlights recent tools (e.g. metagenomics) that can aid in biogeography studies by providing information on nucleic acid sequence data, thereby directly identifying microorganisms in various habitats and environments. In turn, the book describes how human intervention results in depletion of biodiversity, and how numerous hotspots are now losing their endemic biodiversity, resulting in the loss of many ecologically important microorganisms. In closing, the book underscores the importance of microbial diversity for sustainable ecosystems. .